FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE OUTRIGGER TELESCOPES PROJECT

VOLUME II

Mauna Kea Science Reserve, Island of Hawai'i

National Aeronautics and Space Administration
Universe Division
Science Mission Directorate
Washington, DC

February 2005

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VOLUME II: APPENDICES

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APPENDIX A

REFERENCE CORRESPONDENCE

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DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
RAYMOND M. JEFFERSON
DEPUTY DIRECTOR
MARY LOU KOBAYASHI
ADMINISTRATOR
OFFICE OF PLANNING

OFFICE OF PLANNING
235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-10393

February 26, 2004

Mr. Carl B. Pilcher
Keck Observatory Program Scientist
Astronomy and Physics Division
Office of Space Science
National Aeronautics and Space Administration
Headquarters
Washington, D.C. 20546-0001

Dear Mr. Pilcher:

Subject: Request for Clarification of Coastal Zone Management (CZM) Federal Consistency Applicability for the Keck Outrigger Telescopes Project at the W.M. Keck Observatory Site, Mauna Kea Science Reserve, Island of Hawaii

This responds to your request dated February 12, 2004, for confirmation that a CZM federal consistency review is not required for the proposed Keck Outrigger Telescopes Project at the W.M. Keck Observatory Site, Mauna Kea Science Reserve, Island of Hawaii. In our previous letter dated October 3, 2000, we confirmed that a CZM federal consistency review of the project by the Hawaii CZM Program was not required on the basis that: the National Aeronautics and Space Administration's (NASA) role in the project was only to provide congressionally-appropriated funding for the project; NASA was not the entity responsible for on-site construction of the project; NASA would not be the signatory of any of the required construction and/or operating permits; and NASA would not be the entity responsible for operation of the project. Because NASA's role in the project is exactly the same as previously proposed, our confirmation letter dated October 3, 2000, is still valid.

It should be noted that our October 3, 2000, confirmation that a CZM federal consistency review was not required, specifically addressed the implementation of the project itself and did not address whether a CZM federal consistency review was required for the preparation of a Federal Environmental Assessment. The preparation of a Federal Environmental Impact Statement does not necessarily require CZM federal consistency review, because a Federal agency's federal consistency obligations under the Coastal Zone Management Act are independent of those required under NEPA. This is clarified in 15 CFR 930.37 – *Consistency Determinations and National Environmental Policy Act (NEPA) Requirements.*

This confirmation is not an endorsement of the project nor does it convey approval with any other regulations administered by any other agency. Thank you for your cooperation in complying with Hawaii's CZM Program. If you have any questions, please call John Nakagawa of our CZM Program at (808) 587-2878.

Sincerely,

Mary Lou Kobayashi
Administrator

c: Planning Department, County of Hawaii

RECEIVED
APR 2 [illegible]
DIRECTOR
INSTITUTE FOR AST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

APR 24 2000

In reply refer to: MSR

Robert McLaren, PhD.
Institute for Astronomy
University of Hawaii at Manoa
2680 Woodlawn Drive
Honolulu, HI 96822

Re: Wekiu Bug Mitigation Plan for the W. M. Keck Observatory, Outrigger Telescope Project at Mauna Kea, Hamakua District, Hawaii

Dear Dr. McLaren:

The U.S. Fish and Wildlife Service (Service) has reviewed the December 1999, Wekiu Bug Mitigation Plan for the W. M. Keck Observatory, Outrigger Telescope Project at Mauna Kea, Hamakua District, Hawaii. The project sponsor is the Institute for Astronomy (IfA). The proposed Wekiu Bug Mitigation Plan (WBMP) was specifically prepared by Pacific Analytics L. L. C. to address potential problems that might arise during the construction and operation of the Outrigger telescopes. It also includes a longer-range monitoring component that will be important in assessing factors that may affect the life cycle and population growth of the wekiu bug. The recommendations of the report will be included in the Final Environmental Assessment (EA) for the W. M. Keck Observatory, Outrigger Telescope Project and will be attached to the Conservation District Use Application (CDUA). The proposed project site is entirely located on ceded land owned by the State of Hawaii and managed by the IfA, an affiliate of the University of Hawaii. The Service offers the following comments for your consideration.

As the WBMP acknowledges, the summit area of Mauna Kea is home to a unique Hawaiian ecosystem. Several endemic lichens, ferns, and arthropods including a lycosid spider (*Lycosa* sp.), a moth species belonging to the genus *Agrotis*, and the wekiu bug (*Nysius wekiuicola*) are found on Mauna Kea and nowhere else in the world. Furthermore, as the WBMP acknowledges, it is possible that construction and operation of the Outriggers could have a deleterious impact on the wekiu bug population. We are pleased that the IfA is committed to do no harm to the wekiu bug population during the proposed construction and operation of the Outriggers. Currently, the wekiu bug is a candidate for Federal listing under the Endangered Species Act. To the best of our knowledge, no other federally endangered, threatened, or candidate species, significant wetlands, or other Federal trust resources occur in the immediate summit area of the proposed project site.

The Service supports the recommendations in the WBMP to minimize project impacts to endemic arthropods on the Mauna Kea summit and minimize the impacts to this high-altitude environment from alien species introductions, garbage generation and collection, and visitor use. The Service also supports the proposed designation of a Natural and Cultural Preserve Area consisting of over 10,760

acres and its permanent preservation as described in the Mauna Kea Science Reserve Master Plan. We believe each of the recommendations made in the WBMP will greatly minimize the possibility of negative impact to wekiu bug habitat.

The Service supports Recommendations IV-1 through IX-3 and requests they be incorporated into the W. M. Keck Observatory, Outrigger Telescope Project final EA. The final EA should identify any of the recommendations that will not be included in the project due to engineering and seismic considerations and include an explanation of the rationale for this decision. The final EA should also include a discussion of the cumulative impacts to wekiu bug habitat within Pu'u Hau Oki crater from the Subaru and Keck observatory sites. Furthermore, the final EA should discuss the best options for dealing with snowfall on the road leading to the observatory. Graded snow and the dust it captures are likely to impact surrounding wekiu bug habitat if not handled properly.

Since astronomy development began on the summit in 1963, only two formal on-site arthropod studies have been conducted. Since 1963, an estimated 25% of the potential wekiu bug habitat has been lost due to astronomy development. Recent studies have corroborated incidental observations that wekiu bug populations have declined. The Service supports the recommendation to include ongoing monitoring of the wekiu bug as a component of the W. M. Keck Observatory, Outrigger Telescope Project. However, we request that the final EA for the project specifically describe a long-term biological monitoring program that will be implemented. The monitoring program should be designed to provide the project sponsor with inferences about ecological changes and the impacts of the project and its management strategies on natural resources within the reserve. The Service would be happy to review the components of a specific program for monitoring the wekiu bug and other resources, when it is available.

The Service appreciates the opportunity to comment on the WBMP, and we look forward to reviewing the W. M. Keck Observatory, Outrigger Telescope Project final EA, when it is available. If you have any questions regarding these comments, please contact Fish and Wildlife Entomologist Mike Richardson by telephone at (808) 541-3441 or by facsimile transmission at (808) 541-3470.

Sincerely,

for Paul Henson
Field Supervisor
Ecological Services

cc: Mr. Michael Buck, DOFAW
Mr. John Giffin, DOFAW

BEN J. CAYETANO
GOVERNOR OF HAWAII

TIMOTHY E. JOHNS, CHAIRPERSON
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STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

May 3, 1999

MAY 07 1999

Dr. Robert A. McLaren, Interim Director
Institute for Astronomy
University of Hawaii at Manoa
2680 Woodlawn Drive
Honolulu, Hawaii 96822

LOG NO: 23155
DOC NO: 9903PM07

Dear Dr. McLaren:

SUBJECT: Request for Historic Preservation (Chapter 6E, HRS) and National Historic Preservation Act (Section 106) Review --W.M. Keck Observatory Outrigger Telescope Project in the Mauna Kea Science Reserve, Ka`ohe, Hamakua, Hawaii Island TMK: 4-4-15:09

Thank you for your letter of March 17, 1999 and the opportunity to review and comment on the Draft Environmental Assessment (DEA) prepared for the proposal to add four to six 1.8-meter "outrigger" telescopes around the two existing 10-meter Keck telescopes located on Pu`u Hau Oki.

Before discussing our review of the DEA, two aspects of the review process need clarification. First, the DEA and your letter correctly indicate that the project needs to comply with Section 106 of the National Historic Preservation Act (NHPA) because federal funds are being used for the project. Your letter, however, asks that we coordinate our review with the Advisory Council on Historic Preservation (ACHP). According to the Section 106 regulations, it is technically the responsibility of the federal agency, in this case NASA, to determine the effect of a project on historic properties and to consult with the State Historic Preservation Office on its determination. The agency may designate another party, such as IFA, to execute its responsibility. We suggest that you or NASA review our comments on the DEA and, if you agree, submit the recommended determination to our office for our official comment. We would be glad to provide you with any information you need on the Section 106 process. Second, your letter asks us to review the finding of "no significant impact" proposed by the DEA. We do not review determinations of this sort because, if we understand correctly, this assessment considers a combination of factors, issues, and subject matters that are beyond our expertise and jurisdiction. Our assessment of effect in the following discussion conforms with our standard review process and we ask that it be incorporated in the final Environmental Assessment.

The DEA proposes that IFA will be requesting a "no effect" determination for the construction of the outrigger observatories when applying for the appropriate permits. To support this finding, the DEA cites past studies and a compliance letter to argue that no historic properties are present in the project area. It notes that no cultural remains were found on Pu`u Hau Oki in a 1982 reconnaissance survey of the summit cones[1] and no sub-surface remains were reported during the construction of the Keck I or Keck II observatories. It concludes that Pu`u Hau Oki appears to be of no particular cultural significance because ethnographic information compiled in conjunction with the 1982 survey did not attribute any particular significance to the *pu`u*.[2] Finally, the DEA cites a "no effect" assessment received from the State Historic Preservation Office (SHPO) for the establishment of optical test sites on Pu`u Hau Oki (Ltr. Wilson to McLaren, June 30, 1998).

As a point of clarification, the first archaeological reconnaissance of Pu`u Hau Oki actually took place in 1981 when a portion of the cinder cone was surveyed as one of the five alternative locations for the proposed Kitt Peak National Observatory data collecting facilities (Ltr. McCoy to Jeffries, June 9, 1981). A third reconnaissance survey of another part of Pu`u Hau Oki was undertaken in 1990 when the 5.1 acre Subaru Observatory site was surveyed[3]. No archaeological sites were found in either of these surveys.

As you are aware, we are currently reviewing historical, ethnographic, and archaeological information on Mauna Kea in the process of preparing an historic preservation plan for the Science Reserve which includes the summit region. During this process, we have come to believe that the cluster of cinder cones which merge and collectively form the summit of Mauna Kea is an historic property and that this single landscape feature probably bore the name Kukahau`ula. This single landscape feature is now called Pu`u Hau Oki, Pu`u Kea, and Pu`u Wekiu. Several lines of evidence lead us to the conclusion that the cluster of cones is an historic property. These will be discussed in more detail in documents being prepared for the preservation plan. The first line of evidence indicating the cultural and historical importance of the summit is that, at a minimum, some portion of the summit cluster bore the name Kukahau`ula who appears as a character in recorded Hawaiian traditions and as a figure in legends about Mauna Kea[4]. As a character in traditional histories and genealogies, he is the husband of Lilinoe and is named as an *`aumakua* (family deity) of fishermen. A descendant. Pae, was known as an exceptional fisherman whose bones were coveted for fishhooks by the paramount chief Umi. In one legend, Kukahau`ula is cast in a more fanciful role as the suitor and husband of Poliahu, the deity of snow and, poetically, his name is said to allude to the pink hue that can be seen reflecting from the snow-covered summit. Lilinoe plays a similar role in the mountain's traditions in that she appears both as a traditional character and a mythical

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[1] McCoy, P. "Archaeological Reconnaissance Survey." In *Cultural Resources Reconnaissance of the Mauna Kea Summit Region.* Manuscript, Anthropology Department, Bernice P. Bishop Museum, 1982.

[2] McEldowney, H. "Ethnographic Reconnaissance Survey" In *Cultural Resources Reconnaissance of the Mauna Kea Summit Region.* Manuscript, Anthropology Department, Bernice P. Bishop Museum, 1982.

[3] Robbins, J. and H Hammatt. Archaeological Reconnaissance for the Proposed Japanese National Large Telescope, Maunakea, Hawaii. Manuscript prepared by Cultural Surveys Hawaii for MCM Planning, 1990.

[4] Kamakau, S.M. *Ruling Chiefs of Hawaii.* Honolulu: Kamehameha School Press. 1961:215-17. Poepoe, J.M. "Kamehameha I, Ka Nai Aupuni o Hawaii, K Liona o ka Moana Pakipika." *Ka Nai Aupuni.* 1906:April 30. Poepoe, J.M. Bishop Museum Genealogy Book 13:20, B.P. Bishop Museum Library. Taylor, E.A. "Ku-Kahau-ula and Poliahu" *Paradise of the Pacific.* Vol. 44(7):12-15, 1931.

figure[5]. She is, however, even more frequently associated with the summit region of Mauna Kea. In addition to being the wife of Kukahau`ula in some traditions, she is said to have been buried near the summit and is called the "woman of the mountain." One tradition has her being an ancestor of the illustrious Mahi family who served as warriors and attendants to the paramount *ali`i* of Hawaii Island. In legends, Lilinoe becomes the embodiment of fine mist, the literal meaning of her name, and as such is the companion or sister of Poliahu.

The names Kukahau`ula and Lilinoe are both attributed to cinder cones in the summit region: Kukahau`ula to the summit and Lilinoe to a cone immediately to the southeast of the summit cluster. These names, along with that of Waiau, appear on the earliest reliable map in 1884 and are repeated in the next survey of the summit region in 1891 and 1892[6]. Kukahau`ula is given as the name of "the highest peak" even earlier in 1873 land boundary testimonies[7]. Of all the place names in the summit region, these three are applied the earliest and most consistently to specific landmarks on the mountain. In compiling the 1892 map of Mauna Kea, W.D. Alexander refers to these as "genuine native names[8]." The place name Poliahu appears in traditions and native testimonies as being applied to a trail, spring, pond, and cave[9], but it is not consistently applied to a single and identifiable landscape feature until 1892 when W.D. Alexander proposes attaching this name to "a nameless peak" in honor of the demigoddes, Poliahu, who figures in the tale of Laieikawai[10].

While the association between the summit and Kukahau`ula is sufficiently clear, it is not as clear which specific topographic features at the summit are encompassed by the name. The conclusion drawn here that Kukahau`ula, and thus its association with a significant individual and character, probably applied to the entire summit cluster relies on four major arguments. First, use of the name Pu`u o Kukahau`ula in the boundary testimonies and in subsequent

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[5] Kamakau, S.M. *Ruling Chiefs of Hawaii.* Honolulu: Kamehameha School Press, 1961:215-17, 285. Poepoe, J.M. "Kamehameha I, Ka Nai Aupuni o Hawaii, Ka Liona o ka Moana Pakipika." *Ka Nai Aupuni,* 1906:April 30. Poepoe, J.M. Bishop Museum Genealogy Book 13, page 20, B.P. Bishop Museum Library. Haleole, S.N. "The Hawaiian Romance of Laieikawai.". In *33rd Annual Report of the Bureau of American Ethnology.* Edited by M.W. Beckwith, (1919):480. Taylor, E.A. "Ku-Kahau-ula and Poliahu" *Paradise of the Pacific,* Vol. 44(7):12-15, 1931 Fornander, A. *Fornander Collection of Hawaiian Antiquities and Folk-lore.* Translated and edited by T.G. Thrum. Memoirs of the Bernice P. Bishop Museum, 1919:269. Westervelt, W.D *Legends of Gods and Ghosts.* Boston: H. Ellis, 1915:56.

[6] Lyons, C.J. "North Side of Mauna Kea, Information Sketch." Register Mar 1210, Survey Office, State of Hawaii, 1884 to 1891. Lyons, C.J. "Kaohe and Humuula, Hawaii." Register Map 1891, Survey Office, State.of Hawaii, 1891. Alexander, W.D. "Summit Peaks of Mauna Kea." Register Map 1860, Survey Office, State of Hawaii, 1892. Baldwin, E.D. Field Book 323:55, Survey Office, State of Hawaii, 1891.

[7] Boundary Commission Books for Hawaii, Microfilm in Archives of Hawaii, Vol. B:35.

[8] Preston, E.D. "Determination of Latitude, Gravity, and the Magnetic Elements at Stations in the Hawaiian Islands, Including a Result for the Mean Density of the Earth, 1891, 1892. In *Report of the Superintendent of the U.S. Coast and Geodetic Survey for the Fiscal Year Ending June 30, 1893, Part II.* Washington: Government Printing Office, 1895:596.

[9] Kamakau, S.M. *Ruling Chiefs of Hawaii.* Honolulu: Kamehameha School Press, 1961:16. Poepoe, J.M. "Kamehameha I, Ka Nai Aupuni o Hawaii, Ka Liona o ka Moana Pakipika." *Ka Nai Aupuni,* 1906:April 30. Boundary Commission Books for Hawaii, Microfilm in Archives of Hawaii, Vol. B:40, 1873.

[10] Preston, E.D. "Determination of Latitude, Gravity, and the Magnetic Elements at Stations in the Hawaiian Islands, Including a Result for the Mean Density of the Earth, 1891, 1892. In *Report of the Superintendent of the U.S. Coast and Geodetic Survey for the Fiscal Year Ending June 30, 1893, Part II.* Washington: Government Printing Office, 1895:596.

notes of field surveys[11] indicates that the name was applied, at a minimum, to the cinder cone (i.e., *pu`u*) as a whole and not just to the highest peak or what would generally be considered the summit in English usage. Second, on the early survey maps (i.e., 1884 to 1891 and 1891), the name Kukahau`ula is written to the east of the cluster of cones and is not immediately associated with a particular point. In contrast, the highest point on the mountain on these maps is labeled the "summit" and "summit cone" and the triangulation marker on the northeastern peak of the cluster is labeled "Mauna Kea."

The third argument is that place names attributed to the summit cluster are relatively modern because these cones were not differentiated by name until after the 1920s. The name Pu`u Kea, the northeastern part of cluster, first appears in 1937 when commemorative names, such as Macrae, Douglas and Goodrich, were given to other unnamed cones. The names Pu`u Wekiu for the southernmost cone in the cluster and Pu`u Hau Oki for the westernmost cone were recorded by Forester L.W. Bryan in the 1920s and were officially adopted by the Advisory Committee on Geographic Names in 1974[12]. Another factor suggesting the relatively modern origin of these three names is that all are highly descriptive in nature, particularly in contrast to those older names which tend to be associated with traditional or legendary characters. Pu`u Hau`Oki literally means "frosty peak," Pu`u Kea means "white peak," and Pu`u Wekiu means "summit peak." Finally, from most angles of approach, these three named cones or peaks have the appearance of a single, although uneven and complex, landscape feature. It is only after a more thorough examination of this feature that one, if so inclined, would begin to differentiate particular cinder slopes with their associated crater features. Most early historic accounts of visits to the summit essentially describe the summit as a single feature with some parts being higher than others. This is also reflected in the early survey maps which, through hatch marks, depict the cluster of cones as a single unit. At this time, it can not be known with certainty how Hawaiians during the early historic period and their predecessors would have viewed the cluster or what purposes they may have had to make and name particular distinctions within the cluster. Given the unified appearance of the cluster and the prominence of the name Kukahau`ula, however, it seems reasonable, if not probable, that this name applied to this entire landscape feature, including that which is now called Pu`u Hau Oki.

Another line of evidence indicating the summit cluster was of particular and singular significance can be drawn from the archaeological data. The distribution of known shrine locations essentially radiates, at various distances, outward from the base of the summit cluster. This suggests that the summit cluster could have been the central focus of ritual observances and that part of these observances was to avoid or stop short of this central feature. This is further supported by there being no records, with one possible exception (i.e., a 1935 photograph of a slab and stone mound at the summit peak[13]), of shrines on the summit cluster. The practice of avoiding or staying outside that area of greatest significance is common in many religious observances recorded throughout the world. Thus the summit cluster could have been a focal point of the presumably long journey to the summit region. Avoidance of the summit, or the summit region as a whole, for fear of the spiritual nature of

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[11] Boundary Commission Books for Hawaii, Microfilm in Archives of Hawaii, Vol. B:35, 1873. Baldwin, E.D. Field Book 323:55, Survey Office, State of Hawaii, 1891.

[12] Bryan, L.W. Letter to Libert K. Landgraf, December 31, 1973, Department of Planning and Economic Development. Mark, Shelley. Memorandum to Members of Advisory Council on Geographic Names, March 13, 1974, Department of Planning and Economic Development.

[13] Bryan, E.H. *Mauna Kea Here We Come: The Inside Story of an Scientific Expedition.* Honolulu: Privately Published, 1979:35.

this area may be one explanation for the number of times native Hawaiian guides refused or found excuses not to accompany early historic visitors to the summit. In discussing his tour of Hawaii Island in 1823, missionary William Ellis noted that he was told "numerous fabulous tales relative to its [Mauna Kea] being the abode of the gods, and none ever approach its summit..."[14]

Given our conclusion that Pu'u Hau Oki is part of an historic property, we believe the proposed construction of four to six outrigger telescopes on the site of the W.M. Keck Observatory will have an "adverse effect" both on this historic property and on the summit region which we believe is eligible for inclusion in the National Register as an historic district. In the historic preservation plan we will also be proposing that the summit region of Mauna Kea is eligible for inclusion in the National Register of Historic Places as an historic district because it encompasses a sufficient concentration of historic properties (i.e., shrines, burials and culturally significant landscape features) that are historically, culturally, and visually linked within the context of their setting and environment. Tentatively the boundaries of this district will coincide with the extent of the glacial moraines and the crest of the relatively pronounced change in slope that creates the impression of a summit plateau surrounding the cinder cones at or near the summit (i.e., generally the area above the 11,600 to 12,000 foot contour). The cluster of cones forming the summit, including Pu'u Hau Oki, would be a contributing property to this district. We believe, however, that these "adverse effects" can be mitigated if appropriate measures are adopted. To be in compliance with the Section 106 regulations, these mitigation measures need to be stipulated in a signed Memorandum of Agreement (MOA). The MOA should also address those activities occurring at the stockpiling area which could affect, indirectly, the surrounding areas which are also part of the historic district.

The MOA should be relatively easy to prepare as the DEA has already proposed many of the measures we would find appropriate, including those to be executed during the construction phases and those designated as long-range plans. Descriptions of these measures would need to be slightly reworded to explain how these actions would specifically curtail any further degradation of the summit *pu'u* or the historic district. For example, appropriate measures would include those proposed to stabilize the cinder cone slopes, control the accidental dispersal of debris during and after construction, determine the disposition of excavated material which cannot be reused on site, minimize the visibility of the outrigger observatories within the summit region as well as from a distance, and reduce noise during construction and operation of the observatories. In the case of Puu Hau Oki, mitigation should focus on measures that would prevent or minimize those actions that would further deteriorate the structural and visual integrity (i.e., shape and contour) of the cinder cone and its crater.

The history of the project site given on page VI-1 indicates that 34 feet of earth was removed from the top of the site during the construction of the Keck I telescope. We would concur that this alteration effectively precludes the presence of burials. What isn't clear is the exact history of the 71,700 square feet, apparently the site of Keck II, which was left "in its natural state." The description says that this area was leveled during the construction of Keck II. The process of leveling this area or covering it with excavated material from the Keck I site would not necessarily preclude the possibility of burials because they could lie at moderate depths below the natural surface. The specific history of the northern part of the project area should be clarified and, if ground surfaces still exist that were only superficially altered, then we feel

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[14] Ellis, W. *Journal of William Ellis.* 1827 London ed. and 1917 Hawaii ed. Reprint, Honolulu: Advertiser Publishing, 1963:292.

some provision for dealing with potential burials. These should be included in the MCA for the proposed excavation of the light pipes, junction boxes and tunnels. In the historic preservation plan we are currently preparing, we will be asking that any excavation taking place on the summit cones be subject to testing and/or monitoring. This measure would address the persistent claim that burials were previously disturbed during construction of an observatory and the fact that known and suspected burials are present on other cinder cones in the summit region. Exceptions would be those areas that have been previously altered to such an extent that this degree of alteration would preclude the possibility of remaining burials.

To be in compliance with the 1992 amendments of the NHPA, the federal agency or its designee needs to consult with native Hawaiian organizations on undertakings that could have a potential effect on historic properties which are of religious and cultural significance to them. We suggest that you consider contacting those native Hawaiian groups and individuals who have been identified as having a particular interest in Mauna Kea during preparation of the new Mauna Kea Master Plan.

On another matter, concerns have been raised that this assessment and the pending permit applications may be approved and construction begin before the new Mauna Kea Master Plan has been completed and adopted. We agree it would be preferable to complete the application process after the new Master Plan has been adopted. While we feel there is sufficient information to assess the effects of this project on historic properties, it would be preferable to know that the final decisions were made within the context of the new, long-term development and management plan for the summit region.

Our detailed comments on the DEA can be found in Attachment 1. If you should have any questions about our review comments please contact either Patrick McCoy (692-8029) or Holly McEldowney (692-8028).

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

PM:amk